

IV. AMENDMENTS TO THE CLAIMS

1. (Currently amended) A silicon semiconductor substrate comprising:
a ~~{110} plane or~~ a plane inclined from a {110} plane as a main surface of the substrate; and
a series of steps arranged at an atomic level substantially along a < 110 > orientation on the main surface,
wherein at least most ones of the series of steps extend continuously along the main surface of the substrate.

2. (Original) The silicon semiconductor substrate according to claim 1, wherein the plane inclined from the {110} plane is a plane inclined from the {110} plane toward a < 100 > orientation.

3. (Original) The silicon semiconductor substrate according to claim 2, wherein a silicon single crystal thin film is formed by means of an epitaxial growth method on the surface of the silicon semiconductor substrate having the plane inclined from the {110} plane as the main surface.

4. (Currently amended) The silicon semiconductor substrate according to claim 2, wherein the silicon semiconductor substrate ~~having~~ has the plane inclined from the {110} plane toward the < 100 > orientation as the main surface ~~is subjected to heat treatment,~~ the silicon semiconductor substrate having the plane inclined from the {110} plane toward the < 100 > orientation is a heat-treated silicon semiconductor substrate having the plane inclined from the {110} plane toward the < 100 > orientation, the heat-treated silicon semiconductor substrate heat-treated in a hydrogen gas atmosphere, an argon gas atmosphere or an atmosphere of a mixture thereof.

5. (Currently amended) A silicon semiconductor substrate having a plane inclined from a $\{100\}$ - $\{110\}$ plane toward a $\langle 100 \rangle$ orientation as a main surface, the surface thereof being mirror polished and having a series of steps arranged at an atomic level substantially along a $\langle 110 \rangle$ orientation on the main surface,
wherein at least most ones of the series of steps extend continuously along the main surface.

6. (Currently amended) The silicon semiconductor substrate according to claim 2, wherein an inclination angle of the silicon semiconductor substrate having the plane inclined from the $\{110\}$ plane toward the $\langle 100 \rangle$ orientation as the main surface is greater than 0 degree or more degrees and less than 8 degrees.

7. (Previously Presented) The silicon semiconductor substrate according to claim 2, wherein an orientation flat or a notch is formed in the $\langle 110 \rangle$ orientation.

8. (Previously Presented) A method for manufacturing a silicon semiconductor substrate, which is the silicon semiconductor substrate according to claim 2, comprising the steps of:

preparing a silicon semiconductor substrate having a plane inclined from a $\{110\}$ plane toward a $\langle 100 \rangle$ orientation as a main surface; and

growing a silicon single crystal thin film by means of an epitaxial growth method on the main surface.

9. (Original) A manufacturing method for a silicon semiconductor substrate, which is the silicon semiconductor substrate according to claim 2, comprising steps of:

preparing a silicon semiconductor substrate having a plane inclined from a $\{110\}$ plane toward a $\langle 100 \rangle$ orientation as a main surface; and

heat treating the silicon semiconductor substrate in an atmosphere of hydrogen, argon or a mixture thereof.

10. (Previously Presented) The silicon semiconductor substrate according to claim 6 wherein an orientation flat or a notch is formed in the $\langle 110 \rangle$ orientation.

11. (New) The silicon semiconductor substrate according to claim 1, each one of the plurality of steps defines a respective edge, each edge of each respective one of the plurality of steps is non-linear at an atomic level along the $\langle 110 \rangle$ orientation .